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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/545,964

04/10/2000

Hugh Hind

555255012123

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7590

01/16/2003

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EXAMINER

NGUYEN, TAM V

ART UNIT

PAPER NUMBER

2172

DATE MAILED: 01/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/545,964

Applicant(s)

HIND ET AL.

Examiner

Tam V Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-26 and the added of new claims 27-31 are pending in this action. Claims 1-31 are presented for examination. This Office Action is in response to the amendment filed 10/28/02.

#### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-26 and the added of new claims 27-31 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (US 6493727B1) in view of Lundh et al. (US 6373834B1).

With respect to claims 1 and 18, Huang discloses associating a pair of synchronization parameters with each data record stored in the first and second databases, the pair including a first synchronization parameter associated with the first database, and a second synchronization parameter associated with the second database, (col. 3, lines 65-col. 4, lines 30); updating a data record at the first database, (col. 11, lines 19-44); incrementing the first synchronization parameter associated with the updated data record at the first database, (col. 11, lines 19-44 and col. 6, lines 34-

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44); receiving the first update message at the second database, (col. 5, lines 10-30); and updating the data record at the second database using the information from the first update message, (col. 5, lines 10-30 ).

Huang does not clearly teach, "Transmitting a first update message from the first database to the second database, the first update message including the incremented first synchronization parameter, the second synchronization parameter, and the updated data record from the first database".

However, Lundh teaches when the initiating unit is the master unit, the initiating timing unit determines the synchronization adjustment value by comparing the second parameter  $t_2$  included in the synchronization analysis response message with a predicted second parameter  $t_2$ -predicted. The predicted second time stamp value  $t_2$ -predicated is determined as  $t_2\text{-predicated} = ((t_1 + t_4)/2 - ((t_3 - t_2)/2))$ . The synchronization adjustment values is then determined as  $t_2\text{-predicated} - t_2$ , (col. 3, lines 56-col. 4, lines 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Huang with the teaching of Lundh because when the master timing unit is the initiating timing unit, the master timing unit transmits the synchronization adjustment value in a synchronization updating command message to the slave timing unit.

As to claim 2, Huang further discloses coupling the first database to a host system, (col. 3, lines 65-col. 4, lines 40); and coupling the second database to a portable data communication device, (col. 3, lines 65-col. 4, lines 40).

As to claim 3, Huang further discloses providing a wireless data network for transmitting update messages between the two databases, (col. 5, lines 10-col. 6, lines 43).

As to claim 4, Huang further discloses designating one of the databases as the master database and the other database as a slave database, (col.3, lines 65-col. 4, lines 40).

As to claim 5, Huang further discloses designating the second database as a master and the first database as a slave database, (col. 3, lines 65-col. 4, lines 40); after receiving the first update message at the second database, then determining whether a conflict has occurred between the two database, (col. 5, lines 10-col. 6, lines 44); and if a conflict has occurred, then ignoring the first update message received at the second database, (col. 5, lines 10-col. 6, lines 44).

As to claim 6, Huang further discloses, wherein the determining step includes comparing the second synchronization parameter stored at the second database with

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the second synchronization parameter transmitted to the second database in the first update message, (col. 5, lines 10-col. 6, lines 44).

As to claim 7, Huang further discloses designating the second database as a master and the first database as a slave, (col. 4, lines 49-col. 5, lines 14); updating the data record at the second database, (col. 4, lines 49-col. 5, lines 14); incrementing the second synchronization parameter associated with the updated data record at the second database, (col. 4, lines 49-col. 5, lines 14); transmitting a second update message from the second database to the first database, the second update message including the incremented second synchronization parameter, the first synchronization parameter, and the updated data record from the second database, (col. 4, lines 49-col. 5, lines 14); receiving the second update message at the first database, (col. 4, lines 49-col. 5, lines 14); and detecting a conflict between the first and second databases, and updating the data record at the first database using the information from the second update message, (col. 4, lines 49-col. 5, lines 14).

As to claim 8, Huang further discloses wherein the associating step further includes the step of modifying the data records by appending the pair of synchronization parameters to the data records and storing the modified data records in the respective database, (col. 5, lines 10-col. 6, lines 44)

As claim to 9, Huang further discloses storing the updated data record at the second database, (col. 5, lines 10-col. 6, lines 44); and incrementing the first synchronization parameter associated with the data record at the second database so that it is synchronized with the first synchronization parameter associated with the data record at the first database, (col. 5, lines 10-col. 6, lines 44).

As claim to 10, Huang further discloses wherein the data records represent calendar entries associated with an electronic calendar system, (col. 5, lines 10-col. 6, lines 44).

5. Claims 11-17 and 19-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tran (US 6202060B1) in view of Lundh et al. (US 6373834B1).

With respect to claims 11 and 17, Tran discloses associating a first device synchronization parameter and a first host synchronization parameter with the data records stored at the host system, (col. 12, lines 7-24); associating a second device synchronization parameter and a second host synchronization parameter with the data records stored at the device, (col. 12, lines 7-24);

Tran does not clearly teach, "if a data record is updated at the host system, then updating the first host synchronization parameter, and transmitting a first update message to the device; and if a data record is updated at the device, then updating the

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second device synchronization parameter, and transmitting a second update message to the host”.

However, Lundh teaches if a data record is updated at the host system, then updating the first host synchronization parameter, and transmitting a first update message to the device, (col. 3, lines 56-col. 4, lines 26); and if a data record is updated at the device, then updating the second device synchronization parameter, and transmitting a second update message to the host, (col. 3, lines 56-col. 4, lines 26).

However, Lundh teaches when the initiating unit is the master unit, the initiating timing unit determines the synchronization adjustment value by comparing the second parameter  $t_2$  included in the synchronization analysis response message with a predicted second parameter  $t_2$ -predicted. The predicted second time stamp value  $t_2$ -predicated is determined as  $t_2\text{-predicated} = ((t_1 + t_4)/2 - ((t_3 - t_2)/2))$ . The synchronization adjustment values is then determined as  $t_2\text{-predicated} - t_2$ , (col. 3, lines 56-col. 4, lines 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Huang with the teaching of Lundh because when the master timing unit is the initiating timing unit, the master timing unit transmits the synchronization adjustment value in a synchronization updating command message to the slave timing unit.



As to claim 12, Tran further discloses wherein the first update message includes the updated first host synchronization parameter, the first device synchronization parameter, and the updated data record stored at the host system, (col. 12, lines 7-24).

As to claim 13, Tran further discloses wherein the second update message includes the updated second device synchronization parameter, the second host synchronization parameter, and the updated data record stored at the device, (col. 12, lines 7-54).

As to claim 14, Tran further discloses receiving the first update message at the device, (col. 12, lines 7-54); and if there is no conflict detected at the device, then updating the data record at the device using information from the first update message, (col. 12, lines 7-54).

As to claim 15, Tran further discloses receiving the second update message at the host, (col. 12, lines 7-54); and if there is no conflict detected at the host, the updating the data record at the host using the information from the second update message, (col. 12, lines 7-54)

As to claim 16, Tran further discloses the step of providing a wireless network for transmitting the update message between the host and the portable data communication device, (col. 12, lines 7-54).

With respect to claims 19 and 25, a data record synchronization system, comprising: a host system coupled to a host database, wherein the host database stores data records that have been modified to include a first host synchronization parameter and a first device synchronization parameter in each record, (col. 12, lines 8-24); a portable data communication device (hand phone) coupled to a device database, wherein the device database stores data records that have been modified to include a second host synchronization parameter and a second device synchronization parameter in each record, (col. 12, lines 8-24); a network coupling the host system to the portable data communication device, (col. 12, lines 8-24);

Tran does not clearly teach, "Software operating at the host system for updating a data record and for generating a first update message that is transmitted from the host system to the portable data communication device when a data record is updated at the host system, the first update message including the first host synchronization parameter, the first device synchronization parameter, and the updated data record stored at the host system; and software operating at the portable data communication device for updating a data record and for generating a second update message that is transmitted from the portable data communication device to the host system when a data record is updated at the portable data communication device, the second update message including the second host synchronization parameter, the second device synchronization parameter, and the updated data record stored at the portable data communication device".

However, Lundh teaches software operating at the host system for updating a data record and for generating a first update message that is transmitted from the host system to the portable data communication device when a data record is updated at the host system, the first update message including the first host synchronization parameter, the first device synchronization parameter, and the updated data record stored at the host system, (col. 3, lines 56-col. 4, lines 26); and software operating at the portable data communication device for updating a data record and for generating a second update message that is transmitted from the portable data communication device to the host system when a data record is updated at the portable data communication device, the second update message including the second host synchronization parameter, the second device synchronization parameter, and the updated data record stored at the portable data communication device, (col. 3, lines 56-col. 4, lines 26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Huang with the teaching of Lundh because the user can sent in frames from the mobile station for the mobile connection is received in multiple base stations. The mobile station transmits with the lowest power which is request by one of the base stations. The base station performs calculations and compensates for discrepancies in the round-trip time delay measurements by adjusting the base station local clock.

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As to claim 20, Tran further discloses wherein the portable data communication device is a two-way pager, (col. 2, lines 12-49).

As to claim 21, Tran further discloses wherein the portable data communication device is a cell phone, (col. 17, lines 44-63).

As to claim 22, Tran further discloses wherein the portable data communication device is a PDA, (col. 17, lines 44-63).

As to claim 23, Tran further discloses wherein the portable data communication device is a palmtop, (col. 17, lines 44-63).

As to claim 24, Tran further discloses wherein the portable data communication device is a one and one half way pager, (col. 17, lines 44-63).

As to claim 26, Tran further discloses incrementing the second synchronization parameter associated with the updated data record at the portable data communication device for the second host system, (col. 17, lines 44-63); transmitting a second update message from the portable data communication device to the second host system, the second update message including the incremented second synchronization parameter for the second host system, the first synchronization parameter for the second host system, and the updated data record from the portable data communication device, (col.

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12, lines 8-24); receiving the second update message at the second host system, (col. 12, lines 8-24); and updating the data record at the second host system using the information from the second to update message, (col. 12, lines 8-24).

With respect to claim 27, Tran discloses associating a pair of synchronization parameters with each data record stored in the host systems, the pair including a first synchronization parameter associated with one of the host system, and a second synchronization parameter associated with the portable data communication device, (col. 12, lines 6-24); associating two pairs of synchronization parameters with each data record stored in the portable data communication device, each pair including a first synchronization parameter associated with one of the host system, and a second synchronization parameter associated with the portable data communication device, (col. 12, lines 6-24); updating a data record at one of the host systems, (col. 12, lines 6-26); incrementing the first synchronization parameter associated with the update data record at the one host system, (col. 12, lines 6-24).

Tran does not clearly teach, "Transmitting a first update message from the one host system to the portable data communication device, the first update message including the incremented first synchronization parameter, the second synchronization parameter, and the updated data record from the one host system".

However, Lundh teach transmitting a first update message from the one host system to the portable data communication device, the first update message including

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the incremented first synchronization parameter, the second synchronization parameter, and the updated data record from the one host system, (col. 3, lines 56-col. 4, lines 26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Huang with the teaching of Lundh because when the master timing unit is the initiating timing unit, the master timing unit transmits the synchronization adjustment value in a synchronization updating command message to the slave timing unit.

As to claims 28-31, Tran discloses receiving the first update message at the portable data communication device, (col. 12, lines 6-24); updating the data record at the portable data communication device using the information from the first update message, (col. 12, lines 6-24); receiving the second update message at the one host system; updating the second data record at the one host system using the information from the second update message, (col. 12, lines 6-24); receiving the third update message at the second host system; and updating the second data record at the second host system using the information from the third update message, (col. 12, lines 6-24); incrementing the second synchronization parameter associated with the updated second data record at the portable data communication device for the one host system, (col. 12, lines 6-24); incrementing the second synchronization parameter associated with the updated second data record at the portable data communication device for the second host system, (col. 12, lines 6-24);

Tran does not clearly teach, "Transmitting a second update message form the portable data communication device to the one host system, the second update message including the incremented second synchronization parameter for the one host system, the first synchronization parameter for the one host system, and the updated second data record from the portable data communication device; transmitting a third update message from the portable data communication device to the second host system, the third update message including the incremented second synchronization parameter for the second host system, the first synchronization parameter for the second host system, and the updated second data record from the portable data communication device".

However, Lundh teach transmitting a second update message form the portable data communication device to the one host system, the second update message including the incremented second synchronization parameter for the one host system, the first synchronization parameter for the one host system, and the updated second data record from the portable data communication device, (col. 3, lines 56-col. 4, lines 26); transmitting a third update message from the portable data communication device to the second host system, the third update message including the incremented second synchronization parameter for the second host system, the first synchronization parameter for the second host system, and the updated second data record from the portable data communication device, (col. 3, lines 56-col. 4, lines 26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Huang with the teaching of

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Lundh because when the master timing unit is the initiating timing unit, the master timing unit transmits the synchronization adjustment value in a synchronization updating command message to the slave timing unit.



**Contact Information**

**7. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam V Nguyen whose telephone number is (703) 305-3735. The examiner can normally be reached on 7:30AM-5: 00PM.**

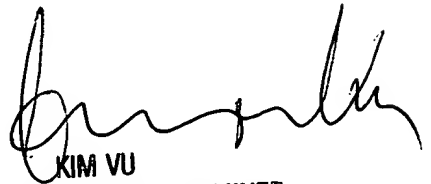
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Yen Vu can be reached on (703) 305-4393. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for formal communications and (703) 746-7240 for informal communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, Virginia 22202. Fourth Floor. (Receptionist).

**8. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.**

TV:tv

01/09/02

  
KIM VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100